

APPENDIX XIV

FindLinks(V) (* find all physical links associated with Vlan V *)
 If V ≠ unknown then (* return links of the server of this Vlan *)
 Let VR be VlanRecord VR corresponding to V.
 Let SR be the server record with SR.Name = VR.ServerName
 Return(SR.Links)
 Else (* for unknown Vlan, return list of all links that have Vlan Servers *)
 LS := Set Union of SR.Links, taken over all server records SR in ServerList
 Return(LS)

FindVlanPort(V,L,LP) (* find Vlan port associated with link port LP on link L *)
 Search through PortMappingList for any entry E with
 E.Vlan = V and E.LinkPort = LP and E.Link = L
 Return (E.VlanPort) or return(NIL) if not found

FindLinkPortofVlan(V,VP,L) (* find link port associated with Vlan port VP on link L *)
 Search through PortMappingList for any entry E with
 E.Vlan = V and E.VlanPort = VP and E.Link = L
 Return (E.LinkPort) or return(NIL) if not found

FindLinkPortofProtocol(S,L) (* find link port on link L for protocol specifier S *)
 Search through PortMappingList for any entry E with
 E.Specifier = S and E.Link = L
 Return (E.LinkPort) or return(NIL) if not found

AddPortMapping(V,VP,L,LP,S) (* create PortRecord associating Vlan Port VP and link port LP *)
 Search port PortMappingList for any entry E with
 E.Vlan = V, E.VlanPort = VP, E.Link = L, E.LinkPort = LP, and E.Specifier = S
 If not found then add an entry E with E.Vlan = V, E.VlanPort = VP,
 E.LinkPort = P, E.Link = L, E.LinkPort = LP, and E.Specifier = S

SourceLookup(SA) (* lookup source address SA in SourceVlanTable, returns a VlanId *)
(* returns UnknownVlanId if unknown and VMLRouterId if SA is a VML Router *)

Split(LinkSet) (* choose one among a set of links, encapsulates splitting policy *)

OpenLinkPort(L) (*returns a port number on physical link L*)

EnableLinkPort(LP, ProtocolSpecifier)
(*enable receipt of packets matching ProtocolSpecifier on link port LP.ProtocolSpecifier *)
(*abstracts all other detailed info like Protocol Type, SAPs, etc. used in DNA Data Links*)